



2004-05 (REISSUE)

Reissue

8126.0

INFORMATION AND COMMUNICATION TECHNOLOGY

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) TUE 26 SEP 2006

CONTENTS

	<i>page</i>
Notes	2
List of tables	3

CHAPTER

1 Summary of findings	4
2 ICT specialists	7
3 Production, imports and exports of selected ICT goods and services	19
4 Recorded media manufacturing and publishing industry	21

ADDITIONAL INFORMATION

Explanatory notes	23
Technical note – Data quality	28
Glossary	30

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or John Jones on Perth (08) 9360 5296.

NOTES

REISSUE

This release corrects errors in estimates of Packaged software and associated licensing imports and exports contained in Table 3.1. As a consequence, figures have also been changed in the associated commentary.

INTRODUCTION

This publication presents results from an Australian Bureau of Statistics survey of Information and Communication Technology (ICT) industries conducted in respect of 2004–05.

The definition of the ICT industry for the purposes of this publication is restricted to the Australian interpretation of the Organisation for Economic Co-operation and Development (OECD) ICT industry definition. See paragraphs 3–6 of the Explanatory notes for more detail.

CHANGES IN THIS ISSUE

Business counts no longer appear in this publication but may be available on request, subject to caveats. See paragraph 24–25 of the Explanatory notes for more detail.

COMPARISONS TO PREVIOUS STATISTICS

A range of quality improvements were implemented for 2004–05 ICT industries survey. As a consequence, data presented in this publication are not directly comparable to those published in previous issues. See paragraphs 24–25 of the Explanatory notes for more detail.

ICT import, export and re-export data were compiled on a different basis to data presented in previous issues. See paragraph 26 of the Explanatory notes for further detail.

DATA QUALITY

When interpreting the results in this publication it is important to take into account factors that may affect the reliability of estimates. These factors are described in the Technical note.



ABBREVIATIONS

\$m	million dollars
ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ABSBR	Australian Bureau of Statistics Business Register
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
f.o.b.	free on board
ICT	information and communication technology
OECD	Organisation for Economic Co-operation and Development
PAYGW	pay-as-you-go withholding
RSE	relative standard error
SE	standard error

Dennis Trewin
Australian Statistician



LIST OF TABLES

page

SUMMARY OF FINDINGS

1.1 Summary of operations, by ICT industry grouping by ICT specialists and all businesses 6

ICT SPECIALISTS

2.1 Sources of income, by ICT Manufacturing industry grouping 10

2.2 Sources of income, by ICT Wholesale trade industry grouping 11

2.3 Sources of income, by ICT Telecommunication services industry grouping 12

2.4 Sources of income, by ICT Computer services industry grouping 13

2.5 Operating expenses, by ICT industry grouping 14

2.6 Performance indicators, by employment size – by ICT industry grouping 16

2.7 Selected state and territory indicators, by ICT industry grouping 18

PRODUCTION, IMPORTS AND EXPORTS OF ICT GOODS AND SERVICES

3.1 Production, imports and exports of selected ICT goods and services 20

RECORDED MEDIA MANUFACTURING AND PUBLISHING INDUSTRY

4.1 Recorded media manufacturing and publishing industry, summary of operations 22

CHAPTER 1

SUMMARY OF FINDINGS

INTRODUCTION

This publication presents results from the 2004–05 Information and Communication Technology (ICT) industries survey. Data are predominantly presented for ICT specialist businesses. See the Glossary for a definition of ICT specialists.

EMPLOYMENT

At 30 June 2005, there were 274,132 persons employed in Australia's ICT industries. Of these employees, 89.1% (244,238 persons) were employed in ICT specialist businesses.

The Computer services industry grouping accounted for the largest proportion of total persons employed in ICT industries (41.1% or 112,738 persons), followed by Telecommunication services (27.1% or 74,198 persons) and Wholesale trade (24.6% or 67,542 persons).

INCOME

Total income for all ICT industries in 2004–05 was \$103,350 million, of which almost three quarters was attributable to the Wholesale trade (\$40,271 million) and Telecommunication services (\$35,755 million) industry groups.

In 2004–05, ICT specialist businesses accounted for 89.1% (\$92,119 million) of Total income. However, the proportion of total income earned by ICT specialist businesses varied considerably between industries, with the Electric cable and wire and Electronic equipment n.e.c. manufacturing industries reporting the lowest proportions (20.1% and 37.3% respectively).

ICT income totalled \$87,012 million in 2004–05 (84.2% of Total income), almost all of which was attributable to ICT specialist businesses (99.6% or \$86,698 million). Industries with the highest ICT income included Telecommunication services (\$34,864 million), Computer wholesaling (\$20,680 million) and Computer consultancy services (\$19,546 million).

OPERATING EXPENSES

During 2004–05, ICT industries incurred Operating expenses totalling \$94,416 million, of which 88.7% (\$83,784 million) was attributable to ICT specialist businesses. Operating expenses were highest in the Wholesale trade (\$38,818 million) and Telecommunication services (\$29,704 million) industry groupings.

In 2004–05, Wages and salaries for all ICT industries totalled \$17,204 million or 18.2% of total Operating expenses. At the industry level, Wages and salaries as a proportion of total Operating expenses were highest for Data processing services (38.2%) and Computer consultancy services (36.6%) and lowest for Computer wholesaling (8.6%) and Electrical and electronic equipment wholesaling n.e.c. (11.8%).

OPERATING PROFIT

Total Operating profit before tax (OPBT) for ICT industries in 2004–05 was \$9,381 million. ICT specialist businesses reported an OPBT of \$8,749 million over the same period.

OPERATING PROFIT

continued

Of all ICT industries, Telecommunication services reported by far the highest OPBT (\$6,192 million), followed by Computer consultancy services (\$1,156 million) and Computer wholesaling (\$774 million). Computer maintenance services was the only industry to report a loss over the period (-\$14 million).

CAPITAL EXPENDITURE

ICT industries reported total Capital expenditure in 2004–05 of \$7,510 million, most of which was attributable to the Telecommunication services industry (77.4% or \$5,816 million). Other industries to report relatively high Capital expenditure included Computer consultancy services (\$1,001 million), Electrical and electronic equipment wholesaling n.e.c. (\$226 million) and Computer wholesaling (\$202 million).

INDUSTRY VALUE ADDED

During 2004–05, total Industry value added (IVA) for ICT industries was \$37,536 million. IVA for ICT specialist businesses totalled \$34,975 million over the period.

Industries with the highest IVA in 2004–05 were Telecommunication services (\$18,217 million), Computer consultancy services (\$10,595 million) and Computer wholesaling (\$3,001 million). In contrast, those with the lowest IVA included Information storage and retrieval services (\$95 million) and Data processing services (\$105 million).

1.1 SUMMARY OF OPERATIONS, by ICT specialists and all businesses

	Employment	ICT income	Total income	Wages and salaries	Total expenses	Operating profit before tax	Capital expenditure	Industry value added
	no.	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ICT SPECIALISTS								
Manufacturing								
Computer and business machines	2 450	664.5	818.1	142.3	805.3	^ 20.9	*9.7	178.9
Telecommunication, broadcasting and transceiving equipment	5 765	1 189.3	1 386.1	359.6	1 276.0	^ 125.2	^ 34.5	483.9
Electronic equipment n.e.c.	3 538	668.7	742.3	147.7	725.3	^ 53.0	37.6	260.8
Electric cable and wire	^ 736	^ 187.6	^ 189.9	^ 39.9	^ 170.7	^ 20.4	2.7	^ 72.2
<i>Total manufacturing</i>	<i>12 489</i>	<i>2 710.1</i>	<i>3 136.3</i>	<i>689.5</i>	<i>2 977.4</i>	<i>219.5</i>	<i>84.6</i>	<i>995.8</i>
Wholesale trade								
Computers	^ 25 644	20 679.8	21 284.8	^ 1 786.1	20 677.0	*773.7	^ 202.1	^ 3 000.5
Business machines	9 202	1 952.1	2 966.2	460.6	2 795.2	^ 182.9	^ 30.6	721.3
Electrical and electronic equipment n.e.c.	9 967	6 002.5	6 793.6	700.3	6 575.7	^ 182.4	^ 104.1	1 026.3
<i>Total wholesale trade</i>	<i>44 814</i>	<i>28 634.4</i>	<i>31 044.6</i>	<i>2 946.9</i>	<i>30 047.8</i>	<i>^ 1 139.0</i>	<i>336.9</i>	<i>4 748.1</i>
Telecommunication services								
Computer services								
Data processing	*1 405	*178.9	^ 192.9	^ 62.5	^ 163.7	**29.2	**21.3	*105.3
Information storage and retrieval	^ 853	^ 182.8	192.0	^ 46.2	164.6	^ 27.4	6.4	^ 94.9
Computer maintenance	3 727	581.7	588.4	178.5	600.3	*-13.5	^ 46.9	219.8
Computer consultancy	106 753	19 546.1	21 210.0	7 360.6	20 126.7	*1 155.8	^ 1 001.3	10 594.8
<i>Total computer services</i>	<i>112 738</i>	<i>20 489.4</i>	<i>22 183.3</i>	<i>7 647.9</i>	<i>21 055.3</i>	<i>*1 198.8</i>	<i>^ 1 075.8</i>	<i>11 014.8</i>
Total	244 238	86 698.1	92 119.1	15 673.0	83 784.2	8 749.0	7 313.0	34 975.2
ALL BUSINESSES (a)								
Manufacturing								
Computer and business machines	2 450	664.5	818.1	142.3	805.3	^ 20.9	*9.7	178.9
Telecommunication, broadcasting and transceiving equipment	5 765	1 189.3	1 386.1	359.6	1 276.0	^ 125.2	^ 34.5	483.9
Electronic equipment n.e.c.	9 031	678.1	1 991.1	454.7	1 843.4	181.1	92.8	750.3
Electric cable and wire	2 408	^ 188.1	945.7	142.0	914.0	^ 30.0	20.4	244.3
<i>Total manufacturing</i>	<i>19 654</i>	<i>2 720.1</i>	<i>5 140.9</i>	<i>1 098.7</i>	<i>4 838.7</i>	<i>357.2</i>	<i>157.5</i>	<i>1 657.5</i>
Wholesale trade								
Computers	^ 25 644	20 679.8	21 284.8	^ 1 786.1	20 677.0	*773.7	^ 202.1	^ 3 000.5
Business machines	10 641	1 981.0	3 367.6	515.0	3 155.8	^ 225.8	^ 33.1	797.3
Electrical and electronic equipment n.e.c.	31 257	6 277.3	15 618.3	1 768.1	14 985.1	634.2	225.6	2 849.0
<i>Total wholesale trade</i>	<i>67 542</i>	<i>28 938.1</i>	<i>40 270.8</i>	<i>4 069.2</i>	<i>38 817.8</i>	<i>^ 1 633.7</i>	<i>460.8</i>	<i>6 646.9</i>
Telecommunication services								
Computer services								
Data processing	*1 405	*178.9	^ 192.9	^ 62.5	^ 163.7	**29.2	**21.3	*105.3
Information storage and retrieval	^ 853	^ 182.8	192.0	^ 46.2	164.6	^ 27.4	6.4	^ 94.9
Computer maintenance	3 727	581.7	588.4	178.5	600.3	*-13.5	^ 46.9	219.8
Computer consultancy	106 753	19 546.1	21 210.0	7 360.6	20 126.7	*1 155.8	^ 1 001.3	10 594.8
<i>Total computer services</i>	<i>112 738</i>	<i>20 489.4</i>	<i>22 183.3</i>	<i>7 647.9</i>	<i>21 055.3</i>	<i>*1 198.8</i>	<i>^ 1 075.8</i>	<i>11 014.8</i>
Total	274 132	87 011.7	103 349.9	17 204.4	94 415.6	9 381.5	7 509.8	37 535.7

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) These estimates have been compiled using methodology specific to the purposes of this survey (see paragraphs 19–22 of Explanatory notes). More accurate estimates of the level of economic activity in these industries will be available from *Australian Industry* (cat. no. 8155.0) and *Manufacturing Industry, Australia* (cat. no. 8211.0), to be released later in 2006.

INTRODUCTION

This chapter presents information about businesses which were ICT specialists. ICT specialist businesses are defined as businesses which derive 50% or more of their Total income from ICT goods or services. The exception to this rule is employing businesses who fall into certain classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Businesses who fall into these classes are regarded as ICT specialists regardless of their income. For further information on these classes please refer to the definition of ICT specialists in the Glossary.

SOURCES OF INCOME

Total income for ICT specialists in the Manufacturing industry grouping was \$3,136 million in 2004–05, with most income coming from Sales of goods produced (86.3% or \$2,708 million). Total sales of goods produced was mainly comprised of: Radio, television and communication equipment and apparatus (\$891 million); Other electronic equipment (\$808 million); and Office, accounting and computing equipment (\$724 million).

In 2004–05, ICT specialists in the Wholesale trade industry grouping reported Total income of \$31,045 million. The majority of this income came from Sales of goods purchased for resale (89.3% or \$27,722 million) including: Computer hardware, parts, components and consumables (\$15,397 million); and Communications hardware, parts, components and consumables (\$5,080 million).

The Telecommunication services industry, which is comprised entirely of ICT specialist businesses, reported Total income of \$35,755 million in 2004–05. Over 90.0% of this income (\$32,468 million) came from the provision of telecommunication services. These were in turn mainly comprised of: Basic telephony service (\$11,414 million); Mobile and paging services (\$9,360 million); and Other telecommunication services (\$5,512 million).

The Computer services industry grouping is composed solely of ICT specialists. They reported Total income of \$22,183 million in 2004–05. The major source of income was the provision of Computer services (\$15,549 million) including: Hardware consultancy (\$3,069 million); Other software consultancy (\$2,959 million); and Customised software services and solutions (\$2,687 million). In addition, the Computer services industry grouping earned \$4,786 million from Sales of goods (21.6% of Total income).

EXPENSES

Operating expenses for ICT specialists in the Manufacturing industry grouping in 2004–05 totalled \$2,977 million. The major expense items for these businesses were: Purchases of materials, components, containers, packing materials, electricity, fuels and water (\$1,291 million); and Labour costs (\$803 million).

EXPENSES *continued*

ICT specialists in the Wholesale trade industry grouping reported total Operating expenses of \$30,048 million in 2004–05. By far the largest expense for these businesses was Purchases of finished goods for resale (\$21,575 million). The next largest expense was Labour costs at \$3,444 million.

Total Operating expenses for ICT specialists in the Telecommunications industry were \$29,704 million. The major expenses for this industry grouping in 2004–05 were: Other operating expenses (\$6,723 million); Telecommunication services (\$6,323 million); and Depreciation and amortisation (\$5,458 million).

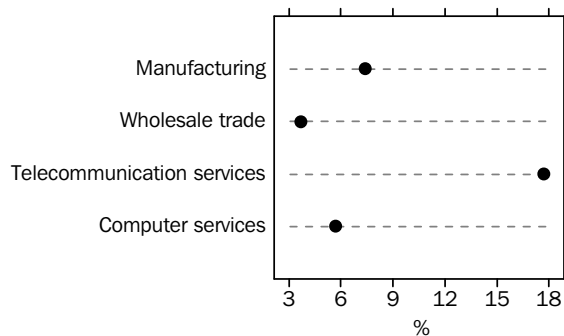
In 2004–05 ICT specialists in the Computer services industry grouping reported Operating expenses of \$21,055 million. The largest expense items for these businesses were: Labour costs (\$8,894 million); and Purchases of finished goods for resale (\$4,079 million).

PERFORMANCE MEASURES

During 2004–05, ICT specialist businesses recorded total OPBT of \$8,749 million. OPBT was highest for ICT specialists in the Telecommunication services industry (\$6,192 million) and lowest for the Manufacturing industry grouping (\$220 million).

The overall Operating profit margin for ICT specialist businesses was 9.7% in 2004–05. At the industry grouping level, profit margins ranged from a high of 17.7% for Telecommunication services to a low of 3.7% for Wholesale trade.

OPERATING PROFIT MARGIN BY ICT INDUSTRY GROUPING

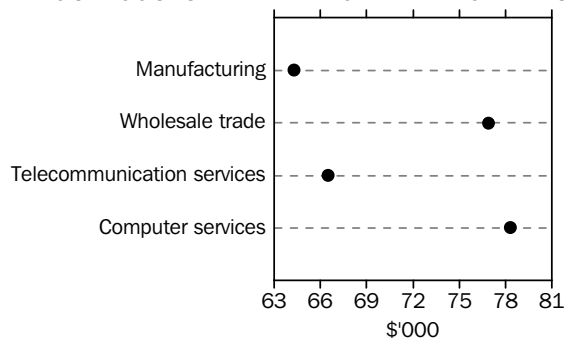


For ICT specialists, Labour costs comprised 21.6% of Total expenses in 2004–05. The proportion was highest for the Computer services industry grouping (42.2%) and lowest for Wholesale trade (11.5%).

In 2004–05, average Labour costs per employee for ICT specialist businesses were \$74,000. The average varied from a high of \$78,900 in the Computer services industry grouping to a low of \$64,300 in Manufacturing.

PERFORMANCE
MEASURES *continued*

LABOUR COSTS PER EMPLOYEE BY ICT INDUSTRY GROUPING



BUSINESS SIZE

In 2004–05, businesses with 100 or more employees accounted for 58.4% of all ICT specialist employment (142,674 persons) and 72.5% (\$66,767 million) of Total income earned by all ICT specialists. In contrast, businesses with 0–19 employees accounted for 27.9% (68,173 persons) of ICT employment but only 15.4% (\$14,181 million) of Total income.

OPBT for ICT specialist business with 100 or more employees totalled \$7,283 million in 2004–05. This compared to \$881 million for ICT specialists with 0–19 employees, and \$584 million for those with 20–99 employees.

STATE AND TERRITORY

New South Wales accounted for 40.4% of employment (98,661 persons) by ICT specialist business in 2004–05, and 44.7% of Wages and salaries (\$7,003 million). Victoria made the next largest contribution with 28.0% of employment (68,488 persons) and 27.8% of Wages and salaries (\$4,356 million).

2.1 SOURCES OF INCOME, by ICT Manufacturing industry grouping

	Income	Proportion of total income
	\$m	%
.....		
Total income from sales of ICT goods produced		
Office, accounting and computing equipment		
Multiple-user computers	12.7	0.4
Personal computers	^ 214.7	^ 6.8
Computer peripherals	* 48.1	* 1.5
Computer parts, other accessories and consumables	217.6	6.9
Other office electronic equipment	230.4	7.3
<i>Total office, accounting and computing equipment</i>	723.5	23.1
Radio, television and communication equipment and apparatus		
Telephone and telegraph equipment	^ 293.3	^ 9.4
Radio broadcast studio equipment, television studio equipment, television or radio transmitters and radio transceivers	351.5	11.2
Parts for radio, television and communication equipment and apparatus	246.6	7.9
<i>Total radio, television and communication equipment and apparatus</i>	891.3	28.4
Other electronic equipment	807.8	25.8
Communications cable and wire	198.8	6.3
<i>Total income from sales of ICT goods produced (a)</i>	2 622.6	83.6
Income from sales of other goods produced	^ 85.3	^ 2.7
Total income from sales of goods produced	2 707.9	86.3
Total income from sales of other goods not produced		
ICT goods	* 38.3	* 1.2
Other goods	^ 9.8	^ 0.3
<i>Total income from sales of goods not produced</i>	^ 48.1	^ 1.5
<i>Total income from sales of goods</i>	2 756.0	87.9
Income from provision of computer services	* 35.4	* 1.1
Income from provision of telecommunication services	* 4.4	* 0.1
Interest income	14.5	0.5
Other Income	326.0	10.4
Total	3 136.3	100.0

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) components may not sum to totals as some small sources of income were not published separately

2.2 SOURCES OF INCOME, by ICT Wholesale trade industry grouping

	Proportion of total Income	
	Income \$m	%
.....		
Income from sales of goods purchased for resale		
Computer hardware, parts, components and consumables	^ 15 396.6	49.6
Communications hardware, parts, components and consumables	5 079.9	16.4
Packaged software (including licencing fees)	^ 3 035.3	^ 9.8
ICT electrical and electronic equipment n.e.c.	3 059.8	^ 9.9
Non-ICT electrical and electronic equipment n.e.c.	510.5	^ 1.6
Other goods	639.9	2.1
<i>Total income from sales of goods not produced</i>	<i>27 722.0</i>	<i>89.3</i>
Income from sales of goods produced		
ICT goods produced	*106.0	*0.3
Other goods produced	^ 14.4	—
<i>Total income from sales of goods produced</i>	<i>*120.4</i>	<i>*0.4</i>
Income from provision of computer services	^ 1 465.4	^ 4.7
Income from provision of telecommunication services	412.1	1.3
Interest Income	133.5	0.4
Other income	1 191.2	3.8
Total	31 044.6	100.0

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

— nil or rounded to zero (including null cells)

2.3 SOURCES OF INCOME, by ICT Telecommunication services industry grouping

	<i>Income</i>	<i>Proportion of total income</i>
	\$m	%
Income from provision of telecommunication services		
Income from provision of basic telephony services	11 414.0	31.9
Income from provision of mobile and paging services(a)		
Short messaging services (SMS)	1 265.7	3.5
Other mobile and paging services	8 094.0	22.6
<i>Total from provision of mobile and paging services</i>	9 359.7	26.2
Income from provision of data and text services	2 876.4	8.0
Income from provision of internet services		
Broadband internet services	^ 1 801.5	^ 5.0
Other internet services	1 504.1	4.2
<i>Total income from provision of internet services</i>	3 305.6	9.2
Income from provision of other telecommunication services		
Intercarrier charges, leased lines, other infrastructure and sales of capacity to other telecommunication operators	2 338.3	6.5
Satellite services	np	np
Other	np	np
<i>Total income from provision of other telecommunication services</i>	5 512.0	15.4
<i>Total income from provision of telecommunication services</i>	32 467.7	90.8
Income from provision of computer services	**172.2	**0.5
Income from sales of goods		
ICT goods	1 978.7	5.5
Other goods	*9.8	—
<i>Total income from sales of goods</i>	1 988.5	5.6
Interest income	175.9	0.5
Other income	950.6	2.7
Total	35 754.9	100.0

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) excluding sales of mobile handsets

2.4 SOURCES OF INCOME, by ICT Computer services industry grouping

	Income	Proportion of total Income
	\$m	%
Income from provision of computer services		
Customised software services and solutions		
Web site design	** 707.5	** 3.2
Other internet applications	^ 143.1	^ 0.6
Other customised software services	^ 1 836.0	^ 8.3
<i>Total customised software services and solutions</i>	^ 2 686.6	^ 12.1
Other software consultancy services	^ 2 959.0	^ 13.3
Software maintenance services	1 608.0	^ 7.2
Hardware consultancy services	3 068.6	13.8
Hardware installation, repair and maintenance services	^ 983.5	^ 4.4
Data processing services	1 221.8	5.5
Information storage and retrieval services	^ 294.1	^ 1.3
Other computer consultancy services	2 727.1	12.3
<i>Total income from provision of computer services</i>	15 548.5	70.1
Income from provision of telecommunication services	* 62.3	* 0.3
Income from sales of goods		
ICT goods		
Computer and communications hardware	3 249.2	14.6
Packaged software (including license fees)	1 295.0	5.8
<i>Total ICT goods</i>	4 544.2	20.5
Other goods	** 242.3	** 1.1
<i>Total income from sales of goods</i>	4 786.5	21.6
Interest income	^ 140.4	^ 0.6
Other income	^ 1 645.7	^ 7.4
Total income	22 183.3	100.0

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

2.5 OPERATING EXPENSES, by ICT industry grouping

	MANUFACTURING		WHOLESALE TRADE		TELECOMMUNICATION SERVICES	
	Expenses	Proportion of total expenses	Expenses	Proportion of total expenses	Expenses	Proportion of total expenses
		\$m		%		\$m
Labour costs						
Wages and salaries	689.5	23.2	2 946.9	9.8	4 388.6	14.8
Employer contributions into superannuation	63.1	2.1	257.4	0.9	214.7	0.7
Workers' compensation premiums/costs	10.9	0.4	25.7	0.1	27.9	0.1
Fringe benefits tax	9.3	0.3	62.4	0.2	32.9	0.1
Payroll tax	30.4	1.0	151.6	0.5	273.1	0.9
Total labour costs	803.2	27.0	3 444.1	11.5	4 937.2	16.6
Purchases						
Finished goods for resale						
Information and communications hardware	152.2	5.1	17 674.9	58.8	2 020.3	6.8
Packaged computer software	np	np	^ 1 577.4	^ 5.2	np	np
Other finished goods for resale	np	np	2 323.0	7.7	np	np
Total finished goods for resale	210.0	7.1	21 575.2	71.8	2 604.4	8.8
Materials, components, containers, packaging materials, electricity, fuels and water	1 290.7	43.4	236.8	^ 0.8	422.3	1.4
Total purchases	1 500.7	50.4	21 812.1	72.6	3 026.7	10.2
Other expenses						
Payments to employment agencies for staff	14.2	0.5	^ 233.0	^ 0.8	191.6	0.6
Payments to contractors and consultants for computing and communication services	np	np	np	np	1 490.8	5.0
Telecommunication services	15.0	0.5	164.1	0.5	6 323.3	21.3
Depreciation and amortisation	80.2	2.7	221.8	0.7	5 457.5	18.4
Interest expenses	17.2	0.6	80.7	0.3	1 248.0	4.2
Insurance premiums	18.7	0.6	57.9	0.2	^ 35.4	0.1
Bad and doubtful debts	np	np	np	np	270.6	0.9
Other operating expenses	448.5	15.1	2 806.9	9.3	6 722.7	22.6
Total other expenses	673.4	22.6	4 791.7	15.9	21 739.9	73.2
Total expenses	2 977.4	100.0	30 047.8	100.0	29 703.7	100.0

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution np not available for publication but included in totals where applicable, unless otherwise indicated

2.5 OPERATING EXPENSES, by ICT industry grouping *continued*

	COMPUTER SERVICES		TOTAL	
	<i>Proportion of total expenses</i>		<i>Proportion of total expenses</i>	
	<i>Expenses</i>	<i>Expenses</i>	<i>Expenses</i>	<i>Expenses</i>
	\$m	%	\$m	%
Labour costs				
Wages and salaries	7 647.9	36.3	15 673.0	18.7
Employer contributions into superannuation	789.0	3.7	1 324.2	1.6
Workers' compensation premiums/costs	40.3	0.2	104.8	0.1
Fringe benefits tax	^ 84.1	0.4	188.8	0.2
Payroll tax	333.2	1.6	788.2	0.9
<i>Total labour costs</i>	<i>8 894.4</i>	<i>42.2</i>	<i>18 078.9</i>	<i>21.6</i>
Purchases				
Finished goods for resale				
Information and communications hardware	^ 3 370.0	16.0	23 217.4	27.7
Packaged computer software	^ 518.4	^ 2.5	^ 2 112.4	^ 2.5
Other finished goods for resale	*190.2	*0.9	3 138.5	3.7
<i>Total finished goods for resale</i>	<i>4 078.7</i>	<i>19.4</i>	<i>28 468.3</i>	<i>34.0</i>
Materials, components, containers, packaging materials, electricity, fuels and water				
	261.4	1.2	2 211.3	2.6
<i>Total purchases</i>	<i>4 340.1</i>	<i>20.6</i>	<i>30 679.6</i>	<i>36.6</i>
Other expenses				
Payments to employment agencies for staff	297.1	1.4	735.9	0.9
Payments to contractors and consultants for computing and communication services	^ 1 170.4	^ 5.6	3 885.4	4.6
Telecommunication services	387.1	1.8	6 889.6	8.2
Depreciation and amortisation	^ 1 103.3	^ 5.2	6 862.9	8.2
Interest expenses	132.8	0.6	1 478.7	1.8
Insurance premiums	104.9	0.5	216.9	0.3
Bad and doubtful debts	^ 29.8	^ 0.1	382.8	0.5
Other operating expenses	4 595.3	21.8	14 573.5	17.4
<i>Total other expenses</i>	<i>7 820.8</i>	<i>37.1</i>	<i>35 025.7</i>	<i>41.8</i>
Total expenses	21 055.3	100.0	83 784.2	100.0

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

2.6 PERFORMANCE INDICATORS, by employment size—by ICT industry grouping

		EMPLOYMENT SIZE			
		0-19 persons	20-99 persons	100 or more persons	Total
MANUFACTURING					
Employment	no.	^ 2 097	3 327	7 065	12 489
Total income	\$m	^ 422.2	868.0	1 846.1	3 136.3
Total expenses	\$m	^ 401.2	794.2	1 782.0	2 977.4
Operating profit before tax	\$m	**22.7	^ 91.4	105.4	219.5
Industry value added	\$m	^ 128.1	310.7	557.0	995.8
Labour costs	\$m	^ 95.2	189.5	518.4	803.2
Earnings before interest and tax	\$m	**24.6	^ 95.0	117.0	236.6
Income per person employed	\$'000	^ 201.4	260.9	261.3	251.1
Labour costs per employee	\$'000	45.4	57.0	73.4	64.3
Labour costs to total expenses	%	23.7	23.9	29.1	27.0
Operating profit before tax per person employed	\$'000	**10.8	^ 27.5	14.9	17.6
Profit margin	%	**5.5	10.8	6.2	7.4
WHOLESALE TRADE					
Employment	no.	^ 12 304	^ 11 018	21 492	44 814
Total income	\$m	^ 6 874.6	6 278.7	17 891.3	31 044.6
Total expenses	\$m	^ 6 637.3	5 915.9	17 494.6	30 047.8
Operating profit before tax	\$m	**343.6	^ 353.6	441.8	^ 1 139.0
Industry value added	\$m	*877.7	^ 1 222.5	2 647.9	4 748.1
Labour costs	\$m	^ 542.8	^ 840.5	2 060.7	3 444.1
Earnings before interest and tax	\$m	**365.9	^ 369.6	484.3	^ 1 219.8
Income per person employed	\$'000	^ 558.7	569.9	832.5	692.7
Labour costs per employee	\$'000	44.1	^ 76.3	95.9	76.9
Labour costs to total expenses	%	8.2	^ 14.2	11.8	11.5
Operating profit before tax per person employed	\$'000	**27.9	^ 32.1	20.6	^ 25.4
Profit margin	%	*5.1	^ 5.8	2.5	^ 3.7
TELECOMMUNICATION SERVICES					
Employment	no.	^ 4 043	*3 650	66 505	74 198
Total income	\$m	^ 830.8	*1 306.6	33 617.5	35 754.9
Total expenses	\$m	^ 788.1	*1 251.1	27 664.5	29 703.7
Operating profit before tax	\$m	*43.2	**53.0	6 095.5	6 191.6
Industry value added	\$m	^ 256.8	*366.6	17 593.1	18 216.5
Labour costs	\$m	^ 196.3	*301.6	4 439.3	4 937.2
Earnings before interest and tax	\$m	*46.9	**61.9	7 330.8	7 439.6
Income per person employed	\$'000	^ 205.5	^ 357.9	505.5	481.9
Labour costs per employee	\$'000	^ 48.6	^ 82.6	66.8	66.5
Labour costs to total expenses	%	^ 24.9	^ 24.1	16.0	16.6
Operating profit before tax per person employed	\$'000	*10.7	**14.5	91.7	83.4
Profit margin	%	*5.5	*4.3	18.5	17.7

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

2.6 PERFORMANCE INDICATORS, by employment size—by ICT industry grouping

continued

		EMPLOYMENT SIZE			
		0-19 persons	20-99 persons	100 or more persons	Total
COMPUTER SERVICES					
Employment	no.	49 730	^ 15 395	47 613	112 738
Total income	\$m	^ 6 053.5	^ 2 717.5	13 412.4	22 183.3
Total expenses	\$m	^ 5 588.1	^ 2 633.3	12 834.0	21 055.3
Operating profit before tax	\$m	*472.0	**86.5	*640.3	*1 198.8
Industry value added	\$m	^ 3 361.4	^ 1 513.2	6 140.2	11 014.8
Labour costs	\$m	2 889.7	^ 1 324.4	4 680.4	8 894.4
Earnings before interest and tax	\$m	*497.9	**103.6	*730.2	^ 1 331.7
Income per person employed	\$'000	121.7	176.5	281.7	196.8
Labour costs per employee	\$'000	58.1	86.0	98.3	78.9
Labour costs to total expenses	%	51.7	50.3	36.5	42.2
Operating profit before tax per person employed	\$'000	*9.5	**5.6	*13.4	*10.6
Profit margin	%	^ 8.7	**3.5	*4.9	*5.7
TOTAL					
Employment	no.	68 173	33 391	142 674	244 238
Total income	\$m	^ 14 181.1	11 170.7	66 767.3	92 119.1
Total expenses	\$m	13 414.7	10 594.5	59 775.1	83 784.2
Operating profit before tax	\$m	*881.5	^ 584.5	7 283.0	8 749.0
Industry value added	\$m	4 624.0	^ 3 413.0	26 938.2	34 975.2
Labour costs	\$m	3 724.0	^ 2 656.0	11 698.8	18 078.9
Earnings before interest and tax	\$m	*935.3	^ 630.0	8 662.3	10 227.7
Income per person employed	\$'000	208.0	334.5	468.0	377.2
Labour costs per employee	\$'000	54.6	79.5	82.0	74.0
Labour costs to total expenses	%	27.8	25.1	19.6	21.6
Operating profit before tax per person employed	\$'000	*12.9	^ 17.5	51.0	35.8
Profit margin	%	^ 6.6	^ 5.5	11.1	9.7

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

2.7 SELECTED STATE AND TERRITORY INDICATORS, by ICT industry grouping

		<i>Manufacturing</i>	<i>Wholesale trade</i>	<i>Telecommunication services</i>	<i>Computer services</i>	<i>Total</i>
Wages and salaries						
New South Wales	\$m	257.9	1 542.1	1 746.4	3 456.4	7 002.9
Victoria	\$m	162.7	^ 904.3	1 236.3	^ 2 052.6	4 355.9
Queensland	\$m	33.0	225.2	568.8	888.0	1 715.1
South Australia	\$m	125.0	75.0	261.8	355.7	817.4
Western Australia	\$m	86.3	117.9	^ 373.3	^ 445.4	1 023.0
Tasmania	\$m	np	8.5	np	^ 36.8	131.7
Northern Territory	\$m	np	14.4	np	21.8	113.1
Australian Capital Territory	\$m	18.2	^ 59.4	45.1	391.2	513.9
Australia	\$m	689.5	2 946.9	4 388.6	7 647.9	15 673.0
Employment						
New South Wales	no.	4 303	22 005	27 350	45 003	98 661
Victoria	no.	2 712	^ 13 450	21 282	^ 31 044	68 488
Queensland	no.	^ 931	4 499	9 970	15 001	30 401
South Australia	no.	2 504	^ 1 460	4 860	6 519	15 342
Western Australia	no.	1 484	2 236	^ 6 994	^ 8 175	^ 18 890
Tasmania	no.	np	242	np	^ 921	2 946
Northern Territory	no.	np	244	np	442	1 966
Australian Capital Territory	no.	424	678	810	5 634	7 545
Australia	no.	12 489	44 814	74 198	112 738	244 238

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

CHAPTER 3

PRODUCTION, IMPORTS AND EXPORTS OF SELECTED ICT GOODS AND SERVICES

INTRODUCTION

This chapter compares, for 2004–05, income from production of ICT goods and services from this survey with imports and exports data compiled from other sources. These sources comprise information submitted by exporters, importers or their agents to the Australian Customs Service and the ABS Survey of International Trade in Services. Income from domestic production relates to all businesses in the industries generally included in the definition of ICT, together with businesses in the Recorded media manufacturing and publishing industry. The basis for compiling data has undergone changes since 2002–03. See paragraph 26 of the Explanatory notes for further details.

It should be noted that the imports and exports details presented in this publication include amounts for re-exports, which are goods imported into Australia and subsequently exported in the same condition, or after undergoing minor operations which leave them essentially unchanged. The value of re-exports are also included in Table 3.1 for reference.

PRODUCTION

Total income from the production of ICT goods and services was \$54,367 million in 2004–05. The majority of this income was attributable to the provision of services, in particular Telecommunication services (60.6% or \$32,949 million) and Computer services (31.8% or \$17,276 million). In contrast, total income from the production of Computer and communications hardware, electronic equipment and cables was only \$3,414 million (6.3% of total production).

IMPORTS AND EXPORTS

Exports of ICT goods and services (including re-exports) totalled \$5,140 million in 2004–05, while imports were valued at \$22,696 million. This represented a trade deficit for ICT goods and services of \$17,555 million. The largest trade deficits occurred in respect of goods including: Consumer audio and video electronics (-\$4,213 million); and Radio, television and communication equipment and apparatus (-\$3,641 million). In contrast, small trade surpluses were reported in respect of Computer services (\$114 million) and Telecommunication services (\$74 million).

3.1 PRODUCTION, IMPORTS AND EXPORTS OF SELECTED ICT GOODS AND SERVICES

	<i>Production</i> (a)	<i>Imports (custom value)</i> (b)	<i>Exports (f.o.b.)</i> (b)(c)	<i>Re-exports (f.o.b.)</i> (b)
	\$m	\$m	\$m	\$m
Computer and communications hardware, electronic equipment and cables				
Computers and personal computers	^ 265.8	3 030.0	333.9	242.3
Computer peripherals	*48.8	2 761.5	263.0	189.3
Computer parts, consumables and accessories	234.4	1 788.5	394.5	260.9
Other office electronic equipment	238.9	68.0	28.6	12.3
Radio, television and communication equipment and apparatus	1 231.2	4 324.4	683.0	158.1
Communications cable and wire	199.8	73.4	33.3	2.0
Other electronic equipment and components	747.7	1 420.0	355.1	118.1
Consumer audio and video electronics(d)	na	4 513.1	300.0	129.7
Equipment and apparatus for measuring, testing, navigating and control(d)	na	1 695.4	572.4	80.0
Electromedical and electrotherapeutic apparatus(d)	na	349.5	45.9	18.7
Unspecified computer and communications hardware, equipment and cables	*447.6	na	na	na
<i>Total computer and communications hardware, electronic equipment and cables</i>	<i>3 414.1</i>	<i>20 023.8</i>	<i>3 009.7</i>	<i>1 211.4</i>
Packaged software and associated licensing	^ 728.1	954.8	225.6	8.5
Income from provision of computer services	17 275.9	1 023.0	1 137.0	..
Income from provision of telecommunication services	32 948.6	694.0	768.0	..
Total	54 366.7	22 695.6	5 140.3	1 219.9

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

.. not applicable

na not available

(a) includes data for Recorded media manufacturing and publishing industry (ANZSIC class 2430)

(b) import, export and re-export data are compiled by the ABS from information submitted by importers, exporters or their agents to the Australian Customs service

(c) exports include exports of Australian commodities and re-exports of goods of foreign origin

(d) production data for these items were not collected by the ICT industries survey

CHAPTER 4

RECORDED MEDIA MANUFACTURING AND PUBLISHING INDUSTRY

INTRODUCTION

The Recorded Media manufacturing and publishing industry (ANZSIC class 2430) is not included in the main part of this publication as it does not form part of the international definition of industries which specialise in ICT activity. As the industry generates income from sales and licensing of packaged software (i.e. ICT activity) in Australia, selected statistics about this industry are presented in this chapter. Details for this industry are also included in Table 4.1 which provides a summary of operations for the industry.

Annual industry data for this ANZSIC class are also published in *Manufacturing Industry, Australia* (cat. no. 8221.0). There are important differences between the statistics in this publication and those in *Manufacturing Industry, Australia* and users should exercise caution when making comparisons between the two sets of estimates. See paragraphs 19–22 of the Explanatory Notes for more detail.

SUMMARY

At the end of June 2005, 2,384 persons were employed by the Recorded media manufacturing and publishing industry. Of these, 1,094 (45.9%) employees worked in ICT specialist businesses.

Total income for the Recorded media manufacturing and publishing industry in 2004–05 was \$647 million, less than half of which was attributable to ICT specialist businesses (44.6% or \$288 million). ICT specialists, however, accounted for 93.9% of all ICT income earned by the industry (\$270 million out of \$288 million).

Total expenses for the industry totalled \$544 million. Of this, \$259 million (47.6%) was accounted for by ICT specialists.

Operating profit before tax for all businesses was \$96 million. ICT specialist businesses contributed \$29 million (30.2%).

4.1 RECORDED MEDIA MANUFACTURING AND PUBLISHING INDUSTRY, Summary of operations

		<i>ICT Specialists</i>	<i>Other businesses</i>	<i>All businesses</i>
Employment	no.	^ 1 094	1 290	2 384
ICT income	\$m	*270.2	*17.5	*287.7
Total income	\$m	*288.5	358.3	^ 646.8
Wages and salaries	\$m	^ 51.4	63.9	115.3
Total expenses	\$m	*259.2	285.1	^ 544.3
Operating profit before tax	\$m	^ 29.0	66.9	95.9
Capital expenditure	\$m	np	np	^ 39.3
Industry value added	\$m	124.6	159.2	283.8

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

EXPLANATORY NOTES

DATA SOURCES

1 The statistics presented in this publication have been compiled from data collected from businesses in the ICT industries survey, in respect of the year ended 30 June 2005. Also included in this publication are:

- import and export data compiled by the ABS from information submitted by exporters, importers or their agents to the Australian Customs Service. Exports include exports of Australian produce and re-exports of goods of foreign origin; and
- data from the ABS Survey of International Trade in Services.

2 The ICT industries survey is conducted biennially and is part of the overall ABS program of economy wide statistics.

SCOPE

3 The scope of the ICT industries survey is based on a set of goods and services descriptions that are of relevance in the Australian context, and which have been agreed by major policy and industry organisations. The scope for the 2004–05 ICT industries survey draws on, but is not identical to, the currently accepted OECD ICT industries definition. The OECD ICT industries definition includes a wider range of goods and services produced and, consequentially, industries involved in ICT activity.

4 Information in this publication covers the main industries involved in the production and distribution of ICT goods and services in Australia. This industry view draws together a number of standard industries from the Australian and New Zealand Standard Industrial Classification (ANZSIC 1993) that specialise in ICT activity.

5 Within these industries, it is the subset of businesses which specialise in ICT which are the prime interest, and therefore the main focus of the statistics in this publication. The Recorded media manufacturing and publishing industry (ANZSIC 2430) is included in a separate chapter of the publication, because it undertakes ICT activity in Australia, but is not within the wider OECD definition of industries.

6 The scope of the 2004–05 ICT industries survey was all employing businesses recorded on the ABS Business Register (ABSBR) and classified to the following ANZSIC (1993) classes:

- *Class 2841, Computer and business machine manufacturing*
- *Class 2842, Telecommunication, broadcasting and transceiving equipment manufacturing*
- *Class 2849, Electronic equipment manufacturing n.e.c.*
- *Class 2852, Electric cable and wire manufacturing*
- *Class 4613, Computer wholesaling*
- *Class 4614, Business machine wholesaling n.e.c.*
- *Class 4615, Electrical and electronic equipment wholesaling n.e.c.*
- *Class 7120, Telecommunication services*
- *Class 7831, Data processing services*
- *Class 7832, Information storage and retrieval services*
- *Class 7833, Computer maintenance services and*
- *Class 7834, Computer consultancy services.*

7 The scope excludes businesses classified to the General Government sector but includes government owned Public Trading Enterprises. As noted above, Class 2430, Recorded media manufacturing and publishing is also included with data presented in a separate chapter.

COVERAGE

8 The frame for the ICTIS survey, like most ABS economic collections, is taken from the ABS Business Register. The register provides a list of employing businesses, primarily based on registrations to the Australian Taxation Office's (ATO) Pay As You Go Withholding (PAYGW) scheme. The frame is updated quarterly to take account of new businesses, businesses which have ceased employing, changes in employment levels, changes in industry and other general business changes. Businesses which have ceased employing are identified when the ATO cancels their Australian Business Number (ABN) and/or PAYGW registration. In addition, businesses with less than 50 employees which did not remit under the PAYGW scheme in each of the previous five quarters are removed from the frame. The estimates in this publication include an allowance for the time it takes a newly registered business to get on the survey frame. There were approximately 30,000 businesses in-scope of the ICT industries survey on the ABSBR in June 2005 when the survey sample was taken.

CHANGES TO THE ABS
BUSINESS REGISTER

9 The introduction of The New Tax System (TNTS) has a number of significant implications for ABS business statistics. These are discussed in *Information Paper, Improvements in ABS Economic Statistics [Arising from the New Tax System]* (cat. no. 1372.0). The replacement of the Group Employer registration process by PAYGW registration resulted in a number of changes to most business survey frames. The changes included the statistical units model; update of industry for some businesses by the ATO; and availability of different measures of business size.

STATISTICAL UNITS DEFINED
ON THE ABS BUSINESS
REGISTER

10 The ABS uses an economic statistics units model on the ABS Business Register to describe the characteristics of businesses, and the structural relationships between businesses. The units model is also used to break groups of related businesses into relatively homogenous components that can provide data to the ABS.

11 In mid 2002, to better use the information available as a result of TNTS, the ABS changed its economic statistics units model. The new units model allocates businesses to two sub-populations. The vast majority of businesses are in what is called the ATO Maintained Population, while the remaining businesses are in the ABS Maintained Population. Together, these two sub-populations make up the ABS Business Register population.

ATO MAINTAINED
POPULATION

12 Most businesses and organisations in Australia need to obtain an ABN, and are then included on the ATO Australian Business Register. Most of these businesses have simple structures; therefore the unit registered for an ABN will satisfy ABS statistical requirements. For these businesses, the ABS has aligned its statistical units structure with the ABN unit. The businesses with simple structures constitute the ATO Maintained Population, and the ABN unit is used as the statistical unit.

ABS MAINTAINED
POPULATION

13 For the population of businesses where the ABN unit is not suitable for ABS statistical requirements, the ABS maintains its own units structure through direct contact with the business. These businesses constitute the ABS maintained population. This

ABS MAINTAINED
POPULATION *continued*

population consists typically of large, complex and diverse businesses. The statistical units model described below caters for such businesses.

Enterprise group: This is a unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the *Corporations Legislation Amendment Act 1991*), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.

Enterprise: An institutional unit comprising: (i) a single legal entity or business entity, or (ii) more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia sub-sector).

Type of activity unit (TAU): The TAU is comprised of one or more business entities, sub-entities or branches of a business entity within an Enterprise Group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry sub-division (and the TAU is classified to the relevant sub-division of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry sub-division. Where a TAU has significant activity in more than one industry, the ABS will 'split' the TAU to maintain industry homogeneity.

EMPLOYMENT

14 Employment data presented in this publication relate to the number of persons employed by the business during the last pay period in June 2005.

INDUSTRY CLASSIFICATION
USED FOR OUTPUT
PURPOSES

15 The ICT industries survey includes all employing businesses on ABSBR that are classified to in-scope industries. The ANZSIC recorded for the business on the ABSBR is only used for the purposes of survey selection. An alternative ANZSIC based on sources of income reported on the survey form is derived for the purposes of output. This may result in differences between industry data published for the in-scope industries in this publication and industry data that may be published in other ABS publications such as *Australian Industry* (cat. no. 8155.0) or *Manufacturing Industry, Australia* (cat. no. 8211.0).

16 The updating of the industry classification from the ANZSIC allocated to the selected unit on the ABSBR to an ANZSIC based on sources of income has an impact on data quality. Based on information received from businesses, 18.3% of businesses selected were made out of scope of the ICT industries survey. A further 20.6% of businesses selected were still in-scope but were found to belong to a different ANZSIC class within the ICT industry groupings. The impact of this on the estimates has been to increase the sampling variability. For more information about the impact of sampling variability on the estimates, please refer to the Technical note.

17 No attempt is made to adjust for businesses on the ABSBR who are classified to an ANZSIC class not within the scope of the ICT industry survey but which would be in-scope based on their sources of income. The impact of this on estimates is unknown.

ICT SPECIALISTS

18 Businesses contributing to estimates in this publication are classified as either ICT specialists or non-specialists. All businesses in the: Computer services and Telecommunication services industry groupings; and the Telecommunication, broadcasting and transceiving equipment manufacturing and Computer wholesaling industry classes were classified as ICT Specialists. Businesses in the remaining industry classes were classified as ICT specialists if 50% or more of their income was derived from ICT activity.

COMPARISONS WITH OTHER
ABS STATISTICS

19 Annual industry data for the ANZSIC classes in-scope of the ICT industries survey are published in *Australian Industry* (cat. no. 8155.0) and *Manufacturing Industry, Australia* (cat. no. 8221.0). There are important differences between the statistics published in the *Australian Industry, Manufacturing Industry, Australia* and *Information and Communication Technology* publications and users should exercise caution when making comparisons between these estimates. The 2004–05 editions of these publications are expected to be released in late 2006.

20 The *Information and Communication Technology* publication supplements the annual industry summary statistics with a detailed examination of the structure and performance of businesses involved in selected ICT industries for the reference year of the survey.

21 One reason the three sets of estimates vary relates to the use of different industry coding practices. For the *Australian Industry* and *Manufacturing Industry, Australia* publications, businesses are coded to ANZSIC industry classes on the basis of the activity reported to the ATO when they registered for an ABN, or for more complex businesses, information reported directly to the ABS (see paragraph 13). On the other hand, ICT industries survey estimates for industry classes are based on detailed income data reported in the survey.

22 Other differences in results relate to further scope and coverage variations between the three surveys. Non-employed units are included in the scope of the range of statistical collections that contribute to estimates published in *Australian Industry*, and the Manufacturing industry collection (from 2001–02) but are generally excluded from the ICT industries survey.

STATE AND TERRITORY DATA

23 Data were collected from the Australia-wide operations of each organisation. Businesses which operated in more than one state or territory were asked to provide a dissection of total employment and wages and salaries to enable state and territory statistics to be compiled and comparisons undertaken.

COMPARISONS WITH
PREVIOUS STATISTICS

24 A range of quality improvements were implemented for 2004–05 ICT industries survey including:

- Collection of more detailed sources of income data for some industries;
- Improvements to procedures used for verifying data collected from businesses selected in the survey;
- Improvements to procedures used to classify businesses to ANZSIC classes for output purposes; and
- A more efficient sample design, reducing the number of businesses that needed to be surveyed.

25 As a consequence of these quality improvements, data presented in this publication are not directly comparable to those published in previous issues. In particular, business counts from the 2004–05 ICT industries survey are not comparable with previously released estimates. Business counts have not been included in this publication but may be available on request, subject to caveats.

26 The compilation of import, export and re-export data presented in Table 3.1 has also changed. The list of ICT goods and services used in 2004–05 was based on the OECD definition (Organisation for Economic Co-operation and Development 2005, *Guide to Measuring the Information Society*, OECD, Paris) and differed to the 2002–03 list of goods and services. Import, export and re-export data compiled using the OECD definition for previous years may be available on request.

RELATED PUBLICATIONS

27 The most recent issue of other ABS publications on the use and production of information and communication technologies in Australia are listed below:

Business Use of Information Technology, Australia, 2004–05 (cat. no. 8129.0)

Household Use of Information Technology, Australia, 2004–05 (cat. no. 8146.0)

Government Technology, Australia, 2002–03 (cat. no. 8119.0)

Internet Activity, Australia, March 2005 (cat. no. 8153.0)

Use of Information Technology on Farms, Australia, 2004–05 (cat. no. 8150.0)

ABS DATA AVAILABLE UPON
REQUEST

28 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

ROUNDING

29 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Proportions, ratios and other calculated figures shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

TECHNICAL NOTE

DATA QUALITY

RELIABILITY OF THE ESTIMATES

1 When interpreting the results of a survey it is important to take into account factors that may affect the reliability of the estimates. Estimates provided in this publication are subject to non-sampling and sampling errors.

NON-SAMPLING ERRORS

2 Non-sampling errors may arise as a result of errors in the reporting, recording or processing of the data. These errors can be introduced through inadequacies in the questionnaire, treatment of non-response, inaccurate reporting by respondents, errors in the application of survey procedures, incorrect recording of answers and errors in data capture and processing.

3 The extent to which non-sampling error affects the results of the survey is difficult to measure. Every effort is made to minimise non-sampling error by careful design and testing of the questionnaire, efficient operating procedures and systems, and the use of appropriate methodology.

STANDARD ERRORS

4 The 2004–05 ICT industries survey had an initial sample size of approximately 2,700 businesses. The final response rate was 93.7%.

5 The estimates presented in this publication are based on information obtained from a sample of businesses in the surveyed population. Consequently, the estimates are subject to sampling variability, that is, they may differ from the figures that would have been obtained if all units had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample was taken. There are about two chances in three that a sample estimate will differ by less than one SE from the figure that would have been obtained if a census had been conducted, and approximately 19 chances in 20 that the difference will be less than two SEs.

6 In this publication, sampling variability is measured by the relative standard error (RSE) which is obtained by expressing the SE as a percentage of the estimate to which it refers. The RSE is a useful measure in that it provides an immediate indication of the sampling error in percentage terms, and this avoids the need to refer also to the size of the estimate.

7 To illustrate, the estimated total income of all businesses classified to Telecommunication services is \$35,755 million, the relative standard error (RSE) was 1.6%, giving a standard error of \$572 million (1.6% of \$35,755 million). Therefore, there would be two chances in three that, if all units had been included in the survey, a figure in the range of \$35,183 million to \$36,327 million would have been obtained, and 19 chances in 20 (i.e. a confidence interval of 95%) that the figure would have been within the range of \$34,611 million to \$36,899 million. For more information about RSEs for estimates presented in this publication, please telephone the contact shown on the front page.

8 Estimates that have a RSE between 10% and 25% are annotated with the symbol '^'. These estimates should be used with caution as they are subject to sampling variability too high for some purposes. Estimates with an RSE between 25% and 50% are annotated with the symbol '*', indicating that the estimates should be used with caution as they are subject to sampling variability too high for most practical purposes. Estimates with an

STANDARD ERRORS *continued*

RSE greater than 50% are annotated with the symbol '***' indicating that the sampling variability causes the estimates to be considered too unreliable for general use.

9 Estimates of RSEs for the key indicators in this publication are shown in the table below.

RELATIVE STANDARD ERRORS FOR TABLE 1.1 SUMMARY OF OPERATIONS

	Employment	ICT income	Total income	Wages and salaries	Total expenses	Operating profit before tax	Capital expenditure	Industry value added
	%	%	%	%	%	%	%	%
ICT SPECIALIST								
Manufacturing								
Computer and business machines	9.4	5.8	5.2	7.0	5.2	15.0	25.6	8.7
Telecommunication, broadcasting and transeiving equipment	3.0	5.7	5.2	3.1	4.6	14.4	12.8	5.4
Electronic equipment n.e.c.	7.4	7.3	6.9	7.7	7.0	14.2	8.2	6.7
Electric cable and wire	13.7	10.5	10.5	11.3	10.5	19.4	0.7	12.1
<i>Total manufacturing</i>	3.0	3.3	3.1	2.6	2.9	9.0	7.0	3.4
Wholesale trade								
Computers	11.1	8.8	8.6	10.3	8.4	29.0	11.8	12.7
Business machine	5.4	4.6	4.0	4.7	3.8	13.0	12.3	5.8
Electrical and electronic equipment wholesaling n.e.c.	9.6	6.7	6.1	7.1	5.9	22.5	14.3	8.9
<i>Total wholesale trade</i>	6.7	6.4	5.9	6.3	5.8	20.2	8.3	8.3
Telecommunication services	2.5	1.6	1.6	2.9	1.8	1.0	0.8	1.1
Computer services								
Data processing	25.9	26.0	24.9	15.2	21.3	52.5	52.0	25.9
Info. storage and retrieval services	14.2	10.1	9.5	11.8	9.3	14.4	1.7	10.1
Computer maintenance	9.8	10.0	9.9	8.2	9.5	49.5	13.9	8.7
Computer consultancy	5.1	4.5	5.0	4.9	4.8	28.2	10.9	5.6
<i>Total computer services</i>	4.9	4.4	4.8	4.7	4.6	27.2	10.0	5.4
Total	2.3	2.1	2.0	2.4	2.1	4.4	1.6	1.8
ALL BUSINESSES								
Manufacturing								
Computer and business machines	9.4	5.8	5.2	7.0	5.2	15.0	25.6	8.7
Telecommunication, broadcasting and transeiving equipment	3.0	5.7	5.2	3.1	4.6	14.4	12.8	5.4
Electronic equipment n.e.c.	4.3	7.2	3.4	3.4	3.8	6.5	6.3	3.3
Electric cable and wire	4.4	10.5	2.2	3.3	2.0	13.3	0.9	3.7
<i>Total manufacturing</i>	2.7	3.3	2.2	2.1	2.2	5.7	5.1	2.5
Wholesale trade								
Computers	11.1	8.8	8.6	10.3	8.4	29.0	11.8	12.7
Business machine	6.7	4.4	7.2	5.3	7.2	12.3	11.6	6.7
Electrical and electronic equipment wholesaling n.e.c.	5.1	6.4	3.1	3.3	3.0	7.4	8.0	3.7
<i>Total wholesale trade</i>	4.8	6.4	4.6	4.5	4.5	14.5	6.0	6.0
Telecommunication services	2.5	1.6	1.6	2.9	1.8	1.0	0.8	1.1
Computer services								
Data processing	25.9	26.0	24.9	15.2	21.3	52.5	52.0	25.9
Info. storage and retrieval services	14.2	10.1	9.5	11.8	9.3	14.4	1.7	10.1
Computer maintenance	9.8	10.0	9.9	8.2	9.5	49.5	13.9	8.7
Computer consultancy	5.1	4.5	5.0	4.9	4.8	28.2	10.9	5.6
<i>Total computer services</i>	4.9	4.4	4.8	4.7	4.6	27.2	10.0	5.4
Total	2.1	2.1	1.9	2.2	1.9	4.2	1.6	1.7

GLOSSARY

Bad and doubtful debts	Refers to the amount of accounts receivable that are either written off, or estimated to be uncollectible during an accounting period, that are expensed in an accounting period's profit calculations.
Capital Expenditure	Refers to costs capitalised in a business' books for land, buildings, plant, machinery and equipment, intangible assets and all other costs capitalised. Included are the value of capitalised work done by the business' own employees and progress payments made to contractors for capital work done.
Depreciation and amortisation	These refer to financial charges made in the accounts to reflect that part of the value of an asset which may be regarded as having been used up in producing revenue in a particular accounting period.
Earnings before interest and tax (EBIT)	A measure of the profit/loss of a business prior to any deductions for interest expenses or income tax. It is derived as: Total income <i>plus</i> Any changes in levels of trading stock inventories <i>less</i> Total expenses excluding interest expenses <i>equals</i> EBIT
Employer contributions into superannuation	Refers to all employer contributions into superannuation including salary sacrifice.
Employment	Includes full-time and part-time employees, employees absent on paid or prepaid leave, managerial and executive employees, permanent, temporary and casual employees and working proprietors and partners. Non-salaried directors, persons paid by commission only and self-employed persons such as consultants and contractors are excluded.
Exports (f.o.b.)	The value of exports is the free on board (f.o.b.) transaction value of the goods expressed in Australian dollars. The f.o.b. value includes the value of packaging (other than containerisation) and excludes freight and insurance costs for the overseas route.
Fringe benefits tax	Fringe benefits tax is paid by employers when certain benefits in excess of normal wages or salaries (e.g. free or discounted goods) are received by their employees in connection with their employment.
Information and Communication Technology (ICT)	Information and Communication Technology refers to the technologies and services that enable information to be accessed, stored, processed, transformed, manipulated and disseminated, including the transmission or communication of voice, image and/or data over a variety of transmission media.
ICT Computer services industry grouping	Refers to businesses classified to the following classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC): <ul style="list-style-type: none">■ 7831, Data processing services■ 7832, Information storage and retrieval services■ 7833, Computer maintenance services■ 7834, Computer consultancy services.
ICT Goods	Information and Communication Technology goods broadly cover: <ul style="list-style-type: none">■ computer and communications hardware and their parts, components and consumables■ other electronic hardware that can be networked (e.g. digital multifunctional photocopiers, cash registers, automatic teller machines, etc.)■ packaged and customised software.

ICT Goods <i>continued</i>	Excluded from ICT goods in the Australian definition are equipment in which the presence of microprocessors is predominantly used for the control of a process or the setting of functions (e.g. robots, scientific and health equipment).
ICT income	Consists of all income from the sale, distribution and provision of ICT goods and services.
ICT industry grouping	Refers to the Division or Group of the Australian and New Zealand Standard Industrial Classification (ANZSIC) that selected ICT activity falls within.
ICT Manufacturing industry grouping	Refers to businesses classified to the following classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC): <ul style="list-style-type: none"> ■ 2841, Computer and business machine manufacturing ■ 2842, Telecommunication, broadcasting and transceiving equipment manufacturing ■ 2849, Electronic equipment manufacturing n.e.c ■ 2852, Electric cable and wire manufacturing.
ICT specialists	Comprises those businesses whose ICT income (as defined above) is 50% or more of the total income of the business, with the exception of businesses classified to the following classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC), who are defined as ICT specialist businesses regardless of their income: <ul style="list-style-type: none"> ■ Class 2842, Telecommunication, broadcasting and transceiving equipment manufacturing ■ Class 4613, Computer wholesaling ■ Class 7120, Telecommunications services ■ Class 7831, Data processing services ■ Class 7832, Information storage and retrieval services ■ Class 7833, Computer maintenance services ■ Class 7834, Computer consultancy services.
ICT Telecommunication services industry grouping	Refers to businesses classified to the following class of the Australian and New Zealand Standard Industrial Classification (ANZSIC): <ul style="list-style-type: none"> ■ 7120, Telecommunication services.
ICT Wholesale trade industry grouping	Refers to businesses classified to the following classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC): <ul style="list-style-type: none"> ■ 4613, Computer wholesaling ■ 4614, Business machine wholesaling ■ 4615, Electrical and electronic equipment wholesaling n.e.c.
Imports (customs value)	The value of imports is the Australian Customs value. This includes inland freight, insurance and other distributive services in the exporting country, up to the place of export and is usually the same as or very close to the f.o.b. value.
Income from provision of Computer services	Refers to a range of computer services including provision of customised software services and solutions, software maintenance, web site design and/or Internet consultancy, computer systems analysis, hardware consultancy, maintenance and repair, disaster recovery, data processing services, computer time sharing, information storage and retrieval.
Income from provision of Telecommunication services	Refers to a range of telecommunication services including provision of basic telephony, mobile and paging services, data and text services, Internet service provision, inter-carrier charges, leased lines and other infrastructure services, sales of capacity to other telecommunication providers, satellite and other telecommunication services.
Industry value added (IVA)	Industry value added for market producers is an estimate of the difference between the value of the output for an industry and the purchases of materials and selected expenses incurred in the production of that output.



Industry value added (IVA) <i>continued</i>	It is derived as: Income derived from the sales of goods and services <i>plus</i> Operational funding from government <i>plus</i> Any changes in levels of trading stock inventories <i>less</i> Purchases of materials, components and services used in the production of goods for sale. <i>less</i> Expenses related to the sale of goods and administrative expenses (excluding indirect taxes such as payroll tax, fringe benefits tax, land tax and land rates) <i>plus</i> Own account capital work <i>less</i> Capitalised purchases of materials <i>equals</i> IVA
Insurance premiums	Refers to expenses incurred by a business in respect of different types of insurance policies. Excluded are workers' compensation and compulsory third party motor vehicle insurance premiums.
Labour costs	Included are wages and salaries, employer contributions into superannuation, workers' compensation premiums/costs, fringe benefits tax and payroll tax.
Operating profit before tax (OPBT)	A measure of profit (or loss) before extraordinary items are brought to account and prior to the deduction of income tax and appropriation to owners. It is derived as: Total Income <i>plus</i> Closing Inventories <i>less</i> Total expenses <i>less</i> Opening inventories <i>equals</i> OPBT
Other income	Refers to all income items not separately itemised, such as dividend income, funding from Federal, State and Local Government and net profit (loss) on foreign exchange rates, sale of non-current assets and share trading. Extraordinary items are excluded.
Other operating expenses	Refers to all expense items not separately itemised, such as printing and postal charges, motor vehicle running expenses and bank charges. Extraordinary items are excluded.
Payments to contractors and consultants for computing and telecommunication services	Refers to payments to other businesses and self-employed persons for computing and telecommunication services work done or sales made on a contract or commission basis.
Payroll tax	Refers to a tax levied by state and territory governments upon the amount of wages and salaries paid by a business.
Profit margin	Refers to the average proportion contributed by sales of goods and services to the profit of businesses. It is derived as: Operating profit before tax <i>divided</i> by revenue from sales of goods and services <i>times</i> 100 <i>equals</i> Profit margin
Total expenses	Refers to the sum of all expense items excluding extraordinary items.
Total income	Refers to the sum of all income items excluding extraordinary items.
Wages and salaries	Refers to wages and salaries and selected provisions for employee entitlements. Included are, severance, termination and redundancy payments, bonuses and payments for annual and other types of leave, salaries and fees of directors and retainers and commissions of persons who received a retainer. Payments related to salary sacrifice are excluded.
Workers' compensation premiums/costs	Refers to the compulsory insurance cover to be taken out by all employers, except for self-insured workers, according to legislative schemes to cover employees suffering injury or disease in the course of or arising out of employment.



FOR MORE INFORMATION . . .

INTERNET **www.abs.gov.au** the ABS web site is the best place for data from our publications and information about the ABS.

LIBRARY A range of ABS publications are available from public and tertiary libraries Australia wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.

INFORMATION AND REFERRAL SERVICE

Our consultants can help you access the full range of information published by the ABS that is available free of charge from our web site, or purchase a hard copy publication. Information tailored to your needs can also be requested as a 'user pays' service. Specialists are on hand to help you with analytical or methodological advice.

PHONE 1300 135 070

EMAIL client.services@abs.gov.au

FAX 1300 135 211

POST Client Services, ABS, GPO Box 796, Sydney NSW 2001

FREE ACCESS TO STATISTICS

All ABS statistics can be downloaded free of charge from the ABS web site.

WEB ADDRESS www.abs.gov.au



2812600007048

ISSN 1832 3928

RRP \$26.00